LEGISLATIVE SERVICES AGENCY
OFFICE OF FISCAL AND MANAGEMENT ANALYSIS

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ADMINISTRATIVE RULE
FISCAL IMPACT STATEMENT

PROPOSED RULE: 94-007 **DATE PREPARED:** Sep 11 97
STATE AGENCY: Department of Environmental Management **DATE RECEIVED:** Jul 28 97

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Digest of Proposed Rule: This proposed rule repeals 327 IAC 6 and adds 327 IAC 6.1, which deals with land application of biosolids, industrial waste products, and pollutant-bearing water. In order to comply with section 405 of the Clean Water Act, existing biosolid land application rules must be amended so that they are at least as stringent as 40 CFR 503. To do this, the rule incorporates federal regulations at 40 CFR 503. For consistency, existing rules pertaining to the land application of industrial waste products and pollutant-bearing water are also being amended.

Specific Provisions and Background Information:

pH Adjustment: Under 327 IAC 6, land application of biosolids cannot occur unless the soil pH is at least 6.5. To attain a soil pH of at least 6.5, lime must be applied. Under 327 IAC 6.1, the requirement for soil pH is reduced to 5.5 in most circumstances. This will result in a reduction in the quantity of lime that must be applied to adjust the pH.

Approximately 183,772 acres are currently permitted for land application of biosolids. Approximately one-fourth of this area (45,930 acres) is used each year. Of the acres used each year, it is estimated that approximately one-half (22,965 acres) needs to have the pH adjusted prior to application of biosolids. Each acre needs an average of two tons of lime to adjust the pH. The cost of commercial agricultural lime is estimated to be $8 per ton.

*Monitoring Frequency for Biosolids and Industrial Waste Products:*Under 327 IAC 6, monitoring is required whenever biosolids or industrial waste products are applied. Monitoring consists of the collection and analysis of samples of these materials to be applied to the land. Under 327 IAC 6.1, the frequency of monitoring is based on the quantity of biosolids or industrial waste products generated or received during a 365-day period. Entities that apply more than zero tons, but less than 100 tons need to monitor only once per year. Currently, most entities apply these materials twice per year. A decrease in the frequency of monitoring will decrease monitoring costs. Each monitoring analysis costs approximately $350. Industrial waste product land application is a function of the private sector only.

*Monitoring Frequency for Pollutant-Bearing Water:*327 IAC 6.1-7-2(c), 3(e), and 4(b) of this proposed rule deal with the monitoring of pollutant-bearing water. These sections add both a new requirement for pH monitoring and additional requirements for coliform monitoring.

Nonsite-Specific Permits: This proposed rule allows generators of biosolids and

industrial waste products that do not meet high quality criteria to obtain a site-specific permit that limits the application of these materials to identified and pre-approved sites. It also allows generators of biosolids and industrial waste products that meet high quality criteria to obtain a nonsite-specific permit that allows the application of these materials on sites not pre-approved by the Indiana Department of Environmental Management (IDEM), but that meet site criteria detailed in the rule.

Under existing rules, entities must obtain a permit for every site where biosolids or industrial waste products will be applied. Under this proposed rule, some entities may obtain one permit for all qualified sites. This option may result in fewer permit applications.

Disposal Costs: IDEM's existing rules allow generators of biosolids, industrial waste products, and pollutant-bearing water to apply these materials to land instead of disposing of them in landfills. Under this proposed rule, the reduced regulatory requirements may increase the quantity of these materials applied to land and the number of entities involved in application. An increase in this activity will decrease the quantity of materials disposed of in landfills. The average cost to landfill is $28.90 per ton.

Agricultural Lime Substitutes: This proposed rule reduces the regulatory burden for agricultural lime substitutes. A reduction in the regulatory burden may increase the use of these materials. The use of lime substitutes instead of commercial agricultural lime to adjust pH would decrease costs. The cost of commercial agricultural lime is estimated to be $8 per ton. It is assumed that there is no cost for lime substitutes.

Applicable Entities: This proposed rule applies to state and local governmental entities involved in land application activities. It also applies to private entities that specialize in land application services, privately-run utilities, residential subdivisions, mobile home parks, and businesses that plan to apply biosolids, industrial product, or pollutant-bearing water.

Governmental Entities:

State:

IDEM: There is no net fiscal impact on IDEM. IDEM staff time and resources will be reallocated within the program. There are no unfunded mandates placed upon any state agency by this proposed rule.

pH Adjustment: This proposed rule will result in savings for state entities involved in biosolid land application. It is estimated that state entities account for approximately 0.4% of all applications. This equates to approximately 90 acres that need pH adjustment. It is estimated that under this proposed rule, the pH will no longer need to be adjusted under most circumstances. If adjustment were no longer needed on every acre where biosolids are applied, state entities would save an estimated $1,440 per year (90 acres x 2 tons x $8/ton) or $10,080 over the seven-year life of the rule.

Monitoring Frequency for Biosolids: In CY 95, five state entities applied biosolids approximately ten times and had ten monitoring events. Under this proposed rule, it is estimated that the number of monitoring events would be reduced to six. This would result in estimated savings of $1,400 per year (4 fewer analyses x $350) or $9,800 over the seven-year life of the rule.

Monitoring Frequency for Pollutant-Bearing Water: The number of state entities

that apply pollutant-bearing water to land is not known, but it is estimated to be only a few. The number of those entities that already monitor is also not known. Therefore, it is not known how many entities will have increased monitoring costs or how much the costs will increase. It is estimated that any increased cost will be insignificant.

Nonsite-Specific Permits: This proposed rule may result in fewer permit applications. A reduction in the number of permit applications will reduce consultant fees paid by state entities. Consultant fees range from $2,500-$5,000 per permit application. The actual impact on the number of permit applications is indeterminable. This will not impact revenue as there is no fee associated with these permits.

Disposal Costs: This proposed rule may result in decreased landfill costs for state entities. The actual increase in land application and decrease in landfilling is indeterminable.

Agricultural Lime Substitutes: This proposed rule may decrease costs for pH adjustment. The quantity of lime substitutes that will be applied instead of commercial agricultural lime is not known. In addition, it is not known how many acres will need pH adjustment. Therefore, the actual impact is indeterminable.

Local:

pH Adjustment: This proposed rule will result in savings for local entities involved in biosolid land application. It is estimated that local entities account for approximately 74.6% of all applications. This equates to approximately 17,134 acres that need pH adjustment. It is estimated that under this proposed rule, the pH will no longer need to be adjusted under most circumstances. If adjustment were no longer needed on every acre where biosolids are applied, local entities would save an estimated $274,144 per year (17,134 acres x 2 tons x $8/ton) or $1,919,008 over the seven-year life of the rule.

Monitoring Frequency for Biosolids: In CY 95, 186 local entities applied biosolids approximately 372 times and had 372 monitoring events. Under this proposed rule, it is estimated that the number of monitoring events would be reduced to 256. This would result in estimated savings of $40,600 per year (116 fewer analyses x $350) or $284,200 over the seven-year life of the rule.

Monitoring Frequency for Pollutant-Bearing Water: The number of local entities that apply pollutant-bearing water to land is not known, but it is estimated to be only a few. The number of those entities that already monitor is also not known. Therefore, it is not known how many entities will have increased monitoring costs or how much the costs will increase. It is estimated that any increased cost will be insignificant.

Nonsite-Specific Permits: This proposed rule may result in fewer permit applications. A reduction in the number of permit applications will reduce consultant fees paid by local entities. Consultant fees range from $2,500-$5,000 per permit application. The actual impact on the number of permit applications is indeterminable.

Disposal Costs: This proposed rule may result in decreased landfill costs for local entities. The actual increase in land application and decrease in landfilling is indeterminable.

Agricultural Lime Substitutes: This proposed rule may decrease costs for pH adjustment. The quantity of lime substitutes that will be applied instead of

commercial agricultural lime is not known. In addition, it is not known how many acres will need pH adjustment. Therefore, the actual impact is indeterminable.

Regulated Entities:

pH Adjustment: This proposed rule will result in savings for regulated entities involved in biosolid land application. It is estimated that regulated entities account for approximately 25% of all applications. This equates to approximately 5,741 acres that need pH adjustment. It is estimated that under this proposed rule, the pH will no longer need to be adjusted under most circumstances. If adjustment were no longer needed on every acre where biosolids are applied, regulated entities would save an estimated $91,856 per year (5,741 acres x 2 tons x $8/ton) or $642,992 over the seven-year life of the rule.

Monitoring Frequency for Biosolids and Industrial Waste Products: In CY 95, 23 regulated entities applied biosolids and industrial waste products approximately 46 times and had 46 monitoring events. Under this proposed rule, it is estimated that the number of monitoring events would be reduced to 13. This would result in estimated savings of $11,550 per year (33 fewer analyses x $350) or $80,850 over the seven-year life of the rule.

Monitoring Frequency for Pollutant-Bearing Water: The number of regulated entities that apply pollutant-bearing water to land is not known, but it is estimated to be only a few. The number of those entities that already monitor is also not known. Therefore, it is not known how many entities will have increased monitoring costs or how much the costs will increase. It is estimated that any increased cost will be insignificant.

Nonsite-Specific Permits: This proposed rule may result in fewer permit applications. A reduction in the number of permit applications will reduce consultant fees paid by regulated entities. Consultant fees range from $2,500-$5,000 per permit application. The actual impact on the number of permit applications is indeterminable.

Disposal Costs: This proposed rule may result in decreased landfill costs for regulated entities. The actual increase in land application and decrease in landfilling is indeterminable.

Agricultural Lime Substitutes: This proposed rule may decrease costs for pH adjustment. The quantity of lime substitutes that will be applied instead of commercial agricultural lime is not known. In addition, it is not known how many acres will need pH adjustment. Therefore, the actual impact is indeterminable.

Information Sources: Bruce Palin, IDEM, 232-8892; Chris Pedersen, IDEM, 232-8922.